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Amdt date March 16, 2004
Reply to Office action of December 19, 2003**

REMARKS/ARGUMENTS

Claims 1-23 and 25-41 remain in the present application, of which claims 1, 7-8, 21-23, 27-28 and 40-41 are independent. Claims 1, 7, 8, 21, 23 and 40 have been amended herein. Applicants respectfully request reconsideration and allowance of claims 1-23 and 25-41.

Applicants appreciate the time and courtesy extended to Applicants' attorney (Jun-Young Jeon; Reg. No. 43,693) during the telephone interview of March 9, 2004. During the interview, claim 1 has been discussed in reference to U.S. Patent No. 6,466,206 ("Deering"), and claim 7 has been discussed in reference to Deering and U.S. Patent No. 6,233,634 ("Clark et al."). As to claim 1, an agreement was reached that claim 1 is patentably distinguishable over the art of record upon amending it for a minor clarification. As to claim 7, no agreement was reached, except that applicants will submit a response with the arguments presented during the telephone interview for consideration by the Examiner.

Claims, 1, 6, 9-10, 12-13, 23, 25-26, 29-30 and 41 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Deering. With regards to the rejection of claims 9, 10, 25, 26, 29 and 30, references are made to a Law reference. As all of the description of Law in reference to these claims appear to be that of Deering, applicants will consider Law in reference to claims 9, 10, 25, 26, 29 and 30 as having been directed to Deering.

Claims 2-5 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of "Computer

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Graphics:Principles and Practice" ("Foley et al."). Claims 17-18 and 32-39 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Deering in view of U.S. Patent No. 6,133,901 ("Law"). Claims 11, 14-16, 19-20, 31 and 40 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering.

During the March 9th telephone interview, the Examiner and applicants' attorney agreed that Deering does not disclose reducing a gray level of the multi-level values by at least one bit prior to using them as alpha blend values; and using the multi-level values as the alpha blend values for the graphical element in a subsequent compositing stage, and that claim 1 as amended to incorporate the above limitations would be patentably distinguishable over the art of record.

Claim 1 recites, in a relevant portion, "reducing a gray level of the multi-level values by at least one bit prior to using them as alpha blend values; and using the multi-level values as the alpha blend values for the graphical element in a subsequent compositing stage." Since Deering does not disclose such combination of limitations, applicants request that the rejection of claim 1 be withdrawn, and that it be allowed.

Since claims 2-6 and 9-20 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 2-6 and 9-20 be withdrawn and that they be allowed.

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Claim 23 recites, in a relevant portion, "a gray level of the multi-level values is reduced by at least one bit prior to using them as the alpha blend values." Since Deering does not disclose such limitation, applicants request that the rejection of claim 23 be withdrawn, and that it be allowed.

Since claims 25, 26 and 29-39 depend, directly or indirectly, from claim 23, they incorporate all the terms and limitations of claim 23 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants respectfully request that the rejection of claims 25, 26 and 29-39 be withdrawn and that they be allowed.

Claim 40 recites, in a relevant portion, "a display engine for compositing the graphical element with graphics images using the multi-level values as alpha blend values, wherein a gray level of the multi-level values is reduced by at least one bit prior to using them as the alpha blend values." (Emphasis Added). Since the cited references do not teach or suggest such display engine, applicants request that the rejection of claim 40 be withdrawn and that it be allowed.

In rejecting claim 41, the Office Action states that "since the graphical element displayed depends on the values output from the display buffer, it is inherent to change the alpha values of the display buffer in order to change the translucency of the graphical element." However, alpha values are typically specified or varied per pixel or pixels of an image, and not by specifying the alpha value of the display buffer. Applicants submit, therefore, that it is not inherent that "translucency of

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the graphical element is varied by specifying the alpha value of the display buffer." In fact, applicants submit that "specifying the alpha value of the display buffer" itself is completely new and unobvious in combination with other limitations of claim 41. Therefore, applicants request that the rejection of claim 41 be withdrawn and that it be allowed.

Claims 7-8 and 27-28 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of U.S. Patent No. 6,233,634 ("Clark et al."). In rejecting claims 7 and 27, the Office Action states that "Clark discloses a method of displaying image in which "attribute (such as the color, foreground and background intensity, whether or not the character is blinking, etc.). CPU 12 writes values to the appropriate frame buffer locations within video memory 22 to display the desired characters and attributes on display 24," and cites column 7, lines 57-61 of Clark et al. The Office Action further states "Clark discloses the buffer contains color consistent with the foreground color of the text in order to provide appropriate color image."

Applicants traverse the rejection of claims 7-8 and 27-28 because of at least the following reasons.

In one exemplary embodiment of the present invention, "the display buffer is defined to have a constant foreground color that is consistent with a desired foreground color of the text." (Emphasis Added). Clark et al., on the other hand, recites that "[e]ach location on display 24 has an associated word (i.e., two bytes) in the frame buffer. The low byte of the word contains the character value (such as a 0x41 for the character "A" in the

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ASCII character set) and the high byte of the word contains an associated attribute (such as color, foreground and background intensity, whether or not the character is blinking, etc.)." Column 7, lines 53-59 (Emphasis Added)

The above passage clearly teaches that each location of the frame buffer has its own associated byte that contains an attribute associate with that location. Applicants submit that such use of a byte per location of the frame buffer teaches away from "the display buffer [that] is defined to have a constant foreground color." In fact, such use of a byte for attribute per each byte of text would require about twice the memory space in the frame buffer as compared to the display buffer defined to have a constant foreground color, and would be inconsistent with the typical design practice of video/graphics systems, where reduction to memory usage is desired.

Further, it can be seen in Clark et al. that the display used has only 25 rows by 80 columns. (Column 7, lines 50-51). Such displays are also shown in FIGs. 2a-2c of Clark et al. Applicants submit that such display used for displaying text, and the frame buffer for storing the text for such low resolution display would typically not be used together with alpha blend values used for composition of video and/or graphics surfaces. In view of this, applicants further submit that Deering and Clark et al. together do not teach or suggest claims of the present invention.

Claims 7 and 27 each recite, in a relevant portion, "the graphical element includes text, and the display buffer is defined to have a constant foreground color that is consistent

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with a desired foreground color of the text." Since such limitation is neither taught nor suggested by Deering and/or Clark et al., applicants request that the rejection of claims 7 and 27 be withdrawn and that they be allowed.

Claims 8 and 28 each recite, in a relevant portion, "the graphical element includes graphics, and the display buffer is defined to have a constant foreground color that is consistent with a desired foreground color of the graphics." Since such limitation is neither taught nor suggested by Deering and/or Clark et al., applicants request that the rejection of claim 8 and 28 be withdrawn and that they be allowed.

Claims 21 and 22 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of U.S. Patent No. 6,466,210 ("Carlsen et al.").

Claim 21 now recites, in a relevant portion, "reducing a gray level of the multi-level values by at least one bit prior to using them as alpha blend values; and using the multi-level values as the alpha blend values for the graphical element in a subsequent compositing stage." As discussed in reference to claim 1, Deering does not disclose such combination of limitations. Further, applicants do not see in Carlsen et al. any teaching or suggestion for combining with Deering to practice such combination of limitations. Therefore, applicants request that the rejection of claim 21 be withdrawn and that it be allowed.

In rejecting claim 22, the Office Action states that "since the graphical element displayed depends on the values output from the display buffer, it is inherent to change the alpha

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values of the display buffer in order to change the translucency of the graphical element." However, alpha values are typically specified or varied per pixel or pixels of an image, and not by specifying the alpha value of the display buffer. Applicants submit, therefore, that it is not inherent that "opacity of the graphical element may be varied by specifying the alpha value of the display buffer." In fact, applicants submit that "specifying the alpha value of the display buffer" itself is completely new and unobvious in combination with other limitations of claim 22. Therefore, applicants request that the rejection of claim 22 be withdrawn and that it be allowed.

In view of the foregoing amendments and arguments, applicants respectfully request an early issuance of a patent with claims 1-23 and 25-41. If there are any remaining issues that can be addressed over the telephone, the Examiner is invited to call applicants' attorney at the number listed below.

Respectfully submitted,
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